

REMARKS

Claim 7 has been amended to specify a container for holding a fluidic biological sample “while undergoing nucleic acid amplification.” Support for this claim amendment can be found throughout the specification and in original claim 1. Claims 1 and 7 have been amended to add a period to respond to the Examiner’s objection to these claims.

The Examiner has rejected claims 1-3, 5-9, 14 and 15 under 35 U.S.C. § 102(e) as being anticipated by Seubert et al. (U.S. Patent No. 5,785,926; the ‘926 patent). The Examiner indicates that the ‘926 patent discloses a container for holding a fluidic biological sample that includes a receiving portion and a reaction portion as specified in independent claim 1, and its dependent claims 2-3 and 5-6, and independent claim 7, and its dependent claims 8-9, 14, and 15. The receiving portion, according to the Examiner, comprises the parts of the device disclosed in the ‘926 patent with reference numerals 54, 84, and 94 as shown in Fig. 17.

Anticipation exists only if all the elements of the claimed invention are present in a product or process disclosed, expressly or inherently, in a single prior art reference. *Hazeltine Corp. v. RCA Corp.*, 468 U.S. 1228 (1984). Independent claims 1 and 7 respectively require that the reaction portion is in “fluidic communication with the receiving portion such that the biological sample placed in the receiving portion can travel to the reaction portion” (claim 1) or that the reaction portion is in “fluidic communication with the reservoir such that the biological sample placed in the reservoir portion can travel to the reaction portion” (claim 7). Respectfully, the Examiner has misinterpreted the device described in the ‘926 patent because the Examiner concludes that the parts of the device with reference numerals 54, 84, and 94 as shown in Fig. 17 of the ‘926 patent comprise a receiving portion or a reservoir for a biological sample. The parts of the device disclosed in the ‘926 patent with reference numerals 54, 84, and 94 as shown in Fig. 17 are an actuator, an adapter, and a threaded cap. The device shown in Fig. 17 is a device for sample collection that functions as a pneumatic piston that withdraws fluid from, for example, a microtiter plate and into the capillary tube (reference numeral 38) which is part of the device

shown in Fig. 17. The device shown in Fig. 17 functions in a manner similar to a standard laboratory pipette.

The device shown in Fig. 17 is used to draw fluid only into the bottom of the capillary tube as shown in Fig. 5 in the '926 patent. For example, as stated in the '926 patent specification (see column 5, lines 44-47), "upon retracting the spindle portion 80 in FIG. 17, a controlled volume of sample fluid 36 will be drawn into the capillary tube 38 so as to form a sample fluid segment 112 as shown in FIG. 5 when the capillary tube is withdrawn from the microtiter plate 72." Accordingly, the parts of the device with reference numerals 54, 84, and 94 do not form a receiving portion or a reservoir for a biological sample as the Examiner suggests, but, rather form parts of a pneumatic piston used to draw fluid into the capillary tube (reference numeral 38). Thus, the '926 patent cannot anticipate claims 1-3, 5-9, 14, and 15. Withdrawal of the rejection of claims 1-3, 5-9, 14 and 15 under 35 U.S.C. § 102(e) is respectfully requested.

The Examiner also rejected claims 4, 10, 17, and 18 under 35 U.S.C. § 103(a) as being obvious over the '926 patent. Claim 4 depends from independent claim 1 and claims 10, 17, and 18 depend from independent claim 7. Thus, claims 4, 10, 17, and 18 specify that the reaction portion is in "fluidic communication with the receiving portion such that the biological sample placed in the receiving portion can travel to the reaction portion" (claim 4), or that the reaction portion is in "fluidic communication with the reservoir such that the biological sample placed in the reservoir portion can travel to the reaction portion" (claims 10, 17, and 18). As discussed above, the parts of the device with reference numerals 54, 84, and 94 disclosed in the '926 patent, and relied on by the Examiner to render obvious the receiving portion or the reservoir of Applicants' claimed container, do not form a receiving portion or a reservoir for a biological sample as the Examiner suggests, but, rather form parts of a pneumatic piston used to draw fluid into the capillary tube (reference numeral 38). Accordingly, the '926 patent does not describe the receiving portion specified in claims 4, 10, 17, and 18 and cannot render the subject matter of claims 4, 10, 17, and 18 obvious. Withdrawal of the rejection of claims 4, 10, 17, and 18 under 35 U.S.C. § 103(a) is respectfully requested.

The Examiner also rejected claim 12 under 35 U.S.C. § 103(a) as being obvious over the '926 patent in view of Bauman et al. (U.S. Patent No. 3,876,376; the '376 patent). Claim 12 incorporates the subject matter of claims 7, 10, and 11. Because claim 12 incorporates the subject matter of claim 7, the arguments discussed above with respect to the '926 patent apply with equal force to this rejection. Furthermore, claim 12 incorporates the subject matter of claim 10. Claim 10 requires that the reaction portion comprises a capillary tube having a 0.8 mm inner diameter and a 1.0 mm outer diameter. Neither the '926 patent nor the '376 patent describes or even mentions a capillary tube having a 0.8 mm inner diameter and a 1.0 mm outer diameter. Thus, the subject matter of claim 12 cannot be obvious over the '926 patent in view of the '326 patent. Withdrawal of the rejection of claim 12 under 35 U.S.C. § 103(a) is respectfully requested.

The Examiner also rejected claims 7-9 and 13-18 under 35 U.S.C. § 103(a) as being obvious over Muller (U.S. Patent No. 5,260,032; the '032 patent). Claim 7 has been amended to specify "a container for holding a fluidic biological sample while undergoing nucleic acid amplification." The '032 patent does not describe a container for holding a fluidic biological sample while undergoing nucleic acid amplification. Rather, the '032 patent describes a device used to prepare microscope slide specimens.

Furthermore, the '032 patent does not make any suggestion that the thermal conductivity of the glass slide described in the '032 patent is about 20 to about 35 in accordance with the equation specified in independent claim 7. The thermal conductivities of glass are variable depending on the glass composition, porosity, etc., and the '032 patent provides no information about the composition of the glass slide and makes no suggestion that the thermal conductivity of the glass slide described in the '032 patent is within the claimed thermal conductivity range of about 20 to about 35. Accordingly, the subject matter of claims 7-9 and 13-18 cannot be obvious over the '032 patent. Withdrawal of the rejection of claims 7-9 and 13-18 under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

The foregoing amendments and remarks are believed to fully respond to the Examiner's rejections. The claims are in condition for allowance. Applicants respectfully request allowance of the claims, and passage of the application to issuance.

Respectfully submitted,
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